## **CLAIMS**

What is claimed is:

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1. A network-based wireless telephone communication device, which is linkable by way of a wireless network access point to a network system for providing an interactive multi-person voice communication session with one or more remotely-located network-linked voice communication platforms;

the network-based wireless telephone communication device comprising:

a user interface module, which allows user-initiated control to the network-based wireless telephone communication device;

a wireless network interface module, which is capable of linking in a wireless manner to the wireless network access point for connection to the network system;

a callee specifying module, which allows user to specify each callee's network ID; an instant interactive voice conferencing control module, which is capable of controlling an interactive multi-person voice communication session between the network-based wireless telephone communication device and each network-linked voice communication platform whose network ID is specified by the callee specifying module;

an input-voice processing module, which is capable of receiving the user's natural voice and converting the user's natural voice into digital voice signals for the instant interactive voice conferencing control module to send the digital voice signals by way of the wireless network interface module and the wireless network access point and via the network system to each network-linked voice communication platform whose network ID is specified by the callee specifying module; and

an output-voice processing module, which is capable of receiving each callee's returned digital voice signal from the instant interactive voice conferencing control module that is sent back by way of the network system and the wireless network access point to the wireless network interface module from each callee's network-linked voice communication platform, and which is further capable of converting each callee's returned digital voice signal into natural voice.

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- 2. The network-based wireless telephone communication device of claim 1, which is integrated to a portable information platform.
- 3. The network-based wireless telephone communication device of claim 2, wherein the portable information platform is a mobile phone.
  - 4. The network-based wireless telephone communication device of claim 2, wherein the portable information platform is an electronic dictionary.
  - 5. The network-based wireless telephone communication device of claim 2, wherein the portable information platform is a PDA (Personal Digital Assistant).
- 15 6. The network-based wireless telephone communication device of claim 1, wherein the network system is Internet.
  - 7. The network-based wireless telephone communication device of claim 1, wherein the wireless network interface module is a WLAN-compliant module.
- 8. The network-based wireless telephone communication device of claim 1, wherein the wireless network interface module is a Bluetooth-compliant module.
  - 9. The network-based wireless telephone communication device of claim 1, wherein the instant interactive voice conferencing control module is an ICQ program.